

REMARKS

Applicant notes with appreciate the allowance of claims 11, 12, 13 and 14. Claims 4, 5, 7 and 8 were objected to under 37 CFR 1.75 as being a substantial duplicate of claims 11, 12, 13 and 14, respectively. Claim 1, upon which Claims 4, 5, 7 and 8 are dependent, has been modified to incorporate the limitations of Claim 2, and Claim 2 has been cancelled. In view of the amendment to Claim 1, Claims 4, 5, 7 and 8 are distinct and should now be allowable.

Claims 1-3 and 9-10 were rejected under 35 U.S.C. §102(e) as being anticipated by Turner, *et al.*, (6,018,524), and claim 6 was rejected under 35 U.S.C. §103 as being unpatentable over Turner in view of Ferguson, *et al.*, (5,909,440). Those rejections are respectfully traversed and reconsideration is requested.

Claim 1 is directed to a method of performing prefix searches from a prefix search tree data structure. In a forward pass of that data structure, prefix search comparisons of search keys and data from the data structure are made to determine memory addresses of nodes of the tree data structure and to obtain prefix search results.

In accordance with Claim 1, multiple prefix search keys are distributed to plural prefix search engines in order to enable prefix search processing of the keys in parallel. In a preferred embodiment now recited in Claim 1, the search keys are distributed over a network from an input queue as the engines become idle, and the results of the searches are forwarded over the network to an output queue in an order independent of the order in the input queue.

Turner, *et al.* relates to a novel data structure for prefix searches which relies on a binary search of a data structure called rope search which does not involve a forward pass through a tree from root to the leaves, but instead starts in the middle of the tree and works in both directions. Accordingly, it is questioned whether comparisons are made in a forward pass of a tree data structure toward a leaf. More significantly, with regard to amended Claim 1, however, there is no suggestion in Turner, *et al.* of distributing prefix searches from an input to plural prefix search

engines. In particular, there is no teaching of distributing prefix search keys to plural engines over a network from an input queue and forwarding results of the searches over the network to an output queue in a different order.

For the limitations of Claim 2, now incorporated into Claim 1, the Examiner cited Turner, *et al.*, at column 16, lines 11-50. However, the undersigned can find no mention in Turner, *et al.* of an input queue or an output queue, of distributing the prefix search keys to the plural prefix search engines over a network, of performing these steps as the engines become idle, or of forwarding results of prefix searches of the plural prefix search engines over the network to an output queue in an order independent of the order in the input queue as recited in Claim 1.

Further, there is no suggestion in Turner, *et al.*, at column 16, lines 11-50 as cited by the Examiner, of reordering the prefix search results in an output queue in the same order that the corresponding prefix search keys arrived at the input queue as claimed in the present invention in claim 3.

With respect to claim 9, there is no mention in Turner, *et al.* at column 12, lines 34-50 of memory addresses. Turner, *et al.* uses a variable to point to a marker.

With respect to claim 10, there is no mention in Turner, *et al.* at column 12, lines 34-50 of comparing against plural stored keys. The data structure of Turner, *et al.* stores only one prefix at each node.

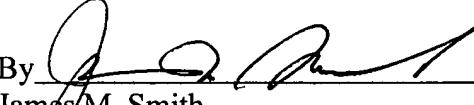
Ferguson, *et al.* does not overcome any of the deficiencies of Turner, *et al.*

CONCLUSION

In view of the above amendments and remarks, it is believed that all claims are in condition for allowance, and it is respectfully requested that the application be passed to issue. If the Examiner feels that a telephone conference would expedite prosecution of this case, the Examiner is invited to call the undersigned.

Respectfully submitted,

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